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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/017,375 | 12/14/2001 | Harinath Garudadri | 010331 | 8079 |

23696 7590 07/08/2009
QUALCOMM INCORPORATED
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| EXAMINER |
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OPSASNICK, MICHAEL N

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| ART UNIT | PAPER NUMBER |
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2626

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| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

07/08/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
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| Office Action Summary | Application No. 10/017,375 | Applicant(s) GARUDADRI ET AL. | |
| | Examiner MICHAEL N. OPSASNICK | Art Unit 2626 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,2,5,8-20 are rejected under 35 U.S.C. 103 as being unpatentable over Kushner et al (6633839) in view of Gao et al (6581032).

As per claims 1,2,5,6, Kushner et al (6633839) teaches a distributed speech recognition system with a subscriber unit (col. 1 lines 5-10, Fig. 1) showing a feature extraction module extracted from speech frame signals(as extracting mfcc values – fig. 7); using a voice activity detection module for voice activity (col. 6 lines 34-59); and a wireless transmitter to transmit the detected activity and the features corresponding to different portions of the speech signal over a distributed voice recognition system (Figs. 1,2, and 3). Kushner does not detail the voice activity detection information to be delivered at least one frame before the features, however, Gao et al (6581032) teaches the distribution of the rate information to the decoder before frames of speech information are decoded (Gao, col. 12 lines 9-23 --> examiner notes that in this paragraph, Gao discusses the providing of rate selection information to the decoder ahead of the speech information; the rate selection of Gao is a measure of voice activity -- see col. 9 line 53 -

col. 10 line 59 -- full/half(type 0 and type 1)/quarter/eight rate selection is based upon the level/type of speech activity in the frame). Therefore, it would have been obvious to one of ordinary skill in the art of speech packet information/distribution to modify the communication system of Kushner with a separate notification to the decoder regarding voicing activity because it would advantageously update the decoders in a timely fashion as to improve the quality of the reconstructed speech and maintaining the average bit rate (Gao, col. 12 lines 9-23; col. 5 lines 19-22).

As per claims 8,14,20, Kushner et al (6633839) teaches the use of 2 bits to command the speech synthesizer in terms of what type of speech activity is contained in the frame (col. 6 lines 34-38).

As per claims 9,10,15,16,21,22, Kushner et al (6633839) teaches using the speech recognition information for hands free voice dialing or hand free information retrieval (col. 1 lines 15-20) in a DSR (col. 1 lines 40-50).

As per claims 11-13,17-19,23-25, Kushner et al (6633839) teaches detection of silence (based on a limit of 4subframe energy comparison), features are frequency based (col. 6 lines 42-45), and lower bit rate during silence (col. 6 lines 58-65).

Claims 26-33 are computer readable medium claims that force a processor to perform the method steps of claims 1-25, (and furthermore, Kushner et al (6633839) teaches a dsp processor

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- one of ordinary skill in the art easily recognizes that a dsp processor contains memory with processor instructions - fig. 4); as such, claims 26-33 are similar in scope and content to the method claims 1,2,5,8-25 and are rejected under similar rationale as presented against claims 1,2,5,8-25 above.

Response to Arguments

3. Applicant's arguments filed 4/14/2009 have been fully considered but they are not persuasive. As per applicants arguments that the prior art does not teach speech based frames, examiner disagrees and notes that applicants interpretation of speech based frame is not consistent with the specification description (see page 9, lines 1-10; page 11 line 30 – page 12, line 15) and based upon these definitions of “speech frame”, applicants definition of speech frame (being a feature representation of the speech signal), matches the “speech frame” as defined by Kushner.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please see related art listed on the PTO-892 form.

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5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Opsasnick, telephone number (571)272-7623, who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Richemond Dorvil, can be reached at (571)272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael N. Opsasnick/
Primary Examiner, Art Unit 2626
7/1/09